UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

September 4, 2012

James Robb
U.S. Army Corps of Engineers, Sacramento District
1325 J Street, Room 1480
Sacramento, California 95814-2922

Subject: Sierra Vista Specific Plan Draft Environmental Impact Statement (EIS), Placer County, California [CEQ #20120230]

Dear Mr. Robb:

The U.S. Environmental Protection Agency (EPA) has reviewed the above referenced document. Our review and comments are provided pursuant to the National Environmental Policy Act (NEPA), the Council on Environmental Quality's (CEQ) NEPA Implementation Regulations at 40 CFR 1500 - 1508, and our review authority under Section 309 of the Clean Air Act.

EPA supports and appreciates the efforts of the U.S. Army Corps of Engineers (Corps) and partners involved in this project area to produce a unified approach in a single EIS. We have rated this Draft EIS as EO-2 – Environmental Objections-Insufficient Information (see Enclosure 1: "Summary of Rating Definitions and Follow-Up Action"), however, because the Proposed Action in the Draft EIS does not appear to be the least environmentally damaging practicable alternative (LEDPA), and does not propose appropriate compensatory mitigation for aquatic resource impacts.

The Proposed Action would adversely affect 24.81 acres of waters of the U.S., including 7.9 acres of vernal pools. In 2008, EPA identified the vernal pools on the project site as an Aquatic Resource of National Importance (ARNI), and determined that the project, as proposed at that time, would have significant and unacceptable impacts to ARNI. The Draft EIS does not demonstrate compliance with the Clean Water Act Section 404(b)(1) Guidelines, which require the Corps to permit only the LEDPA, based on an alternative's avoidance and minimization of impacts to waters. Tens of thousands of acres of land supporting vernal pools and related ecosystems are threatened by numerous proposed developments in western Placer County and adjacent Sacramento County. The Sierra Vista Specific Plan and other proposed development projects could potentially adversely affect 50 percent of the remaining vernal pool complexes in western Placer County. EPA would like to work with the Corps during the development and identification of the LEDPA and compensatory mitigation plan for this project. The Final EIS should identify the Environmentally Preferable Alternative and the LEDPA and explain the basis for these designations. Please see enclosures 2 and 3 for our detailed comments.

The proposed project is located in an area that is federally designated as non-attainment for ozone and PM2.5 (particulate matter smaller than 2.5 microns), and EPA has serious concerns regarding the significant cumulative impacts to air quality within the Sierra Vista cumulative effects study area. Research has shown that these air pollutants can trigger a variety of health problems and may exacerbate conditions such as asthma. The Final EIS should include additional information regarding cumulative impacts to air quality; provide air emissions dispersion modeling results; and demonstrate that the project's emissions would conform to the State Implementation Plan and not cause or contribute to violations of the National Ambient Air Quality Standards. Please see enclosure 2 for our detailed comments regarding air quality.

We appreciate the opportunity to review this Draft EIS. Please note that starting October 1, 2012, EPA Headquarters will not accept paper copies or CDs of EISs for official filing purposes. Submissions on or after October 1, 2012 must be made through EPA's new electronic EIS submittal tool: *e-NEPA*. To begin using *e-NEPA*, you must first register with EPA's electronic reporting site - https://cdx.epa.gov/epa_home.asp. Electronic submission does not change requirements for distribution of EISs for public review and comment, and lead agencies should still provide one hard copy of each Draft and Final EIS released for public circulation to the EPA Region 9 office in San Francisco (mailcode CED-2).

If you have any questions, please call me at (415) 972-3843 or contact Jeanne Geselbracht, our lead NEPA reviewer for this project, at geselbracht.jeanne@epa.gov or (415) 972-3853.

Sincerely,

Enrique Manzanilla, Director
Communities and Ecosystems Division

Enclosures:
(1) Summary of Rating Definitions and Follow-Up Action
(2) EPA's detailed comments on the Sierra Vista Specific Plan Draft EIS
(3) EPA letter to Corps regarding Sierra Vista Specific Plan (PN 200601050), April 28, 2008

Cc: Placer County Air Pollution Control District
Kelly Berrie, U.S. Fish and Wildlife Service

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

Sierra Vista Specific Plan Draft EIS
EPA Detailed Comments - September 2012

Project Alternatives

EPA continues to object to Clean Water Act Section 404 authorization for the Sierra Vista Specific Plan project as proposed because the Proposed Action does not appear to be the least environmentally damaging practicable alternative (LEDPA). Based on information in the Draft EIS, it appears that, among the action alternatives assessed, Alternative 1– Reduced Footprint/Increased Density would result in the lowest level of environmental impacts for the majority of the resource categories assessed, and has not been demonstrated impracticable under the Clean Water Act Section 404(b)(1) Guidelines (Guidelines). As described in the Draft EIS, Alternative 1 would slightly increase the number of residential units, but would also increase designated open space in areas with the greatest concentrations of sensitive habitat (vernal pools and/or drainages). Under this alternative, total acres developed would be 1,027 acres (vs. 1,370 acres under the Proposed Action); open space would be 599 acres (vs. 257 acres); and the residential footprint would be 593 acres (vs. 820 acres), maintaining the number of units through higher densities. Alternative 1 represents a 65% reduction of impacts to aquatic resources overall (from 24.81 acres to 8.66 acres), including a two-thirds reduction of impacts to vernal pools (from 7.9 acres to 2.6 acres).

Aquatic Resources of National Importance and Compliance with the Guidelines

By letter dated April 28, 2008, EPA identified the vernal pools on the project site as an Aquatic Resource of National Importance (ARNI), and determined that the project, as proposed, would have significant and unacceptable impacts to ARNI. Consistent with the 1992 Memorandum of Agreement between EPA and the Corps regarding Section 404(q) of the CWA, this permit action remains a candidate for review by EPA and Corps Headquarters. Our 2008 letter provides detailed comments regarding our concerns with the project's impacts to ARNI and is incorporated into these comments by reference (Enclosure 3).

Based on information currently available, the Sierra Vista Applicants Group (applicants) have not demonstrated compliance with the Guidelines, which require the Corps to permit only the LEDPA, based on an alternative's avoidance and minimization of impacts to waters. In addition, the Guidelines require compensatory mitigation of unavoidable impacts to waters. EPA believes that the Proposed Action is not the LEDPA and that further avoidance of waters is practicable and necessary. While the proposed project generally avoids impacts to the two main drainages on the site (Curry and Federico Creeks), it would eliminate 68 percent of the site's waters, overall. The majority of these impacts (21.12 acres) will occur to depressional wetlands, including vernal pools, seasonal wetlands and seasonal swales. These wetlands are habitat to several special-status plant and wildlife species that are protected under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA), including Dwarf downingia *(Downingia pusilla)* and Conservancy fairy shrimp (*Branchinecta conservatio*). Furthermore, the project is located within the Western Placer County core recovery area of the Southeast Sacramento Valley vernal pool region. Core recovery areas are identified by the Fish and Wildlife Service to focus recovery actions for 20 species of animals and plants that are listed as either Endangered or

Threatened.[1] Statewide losses of vernal pools currently exceed 85 percent of historic distribution, and tens of thousands of acres of land supporting vernal pools and related ecosystems are threatened by numerous proposed developments in western Placer County and adjacent Sacramento County.

Mitigation Measure BIO-1a describes the conceptual mitigation plan to compensate for the loss of 24.81 acres of wetlands and other waters of the U.S. associated with the proposed project. The plan states that the applicants will purchase 7.88 acres of vernal pool credits from an off-site mitigation bank, and that 28.86 acres of riverine/seasonal wetlands will be constructed on the project site within the 257 acres of open space along the two drainage corridors. Consistent with the 2008 Federal Mitigation Rule (40 CFR Part 230, Subpart J), EPA supports the portion of the proposal that utilizes existing mitigation bank credits. However, the conceptual plan does not provide enough information to justify the out-of-kind, permittee-responsible portion of the mitigation proposed. As it appears multiple banks have service areas that include this project site, with available vernal pool and seasonal wetland credits, EPA believes this should be the Corps' preferred approach to approved mitigation for this project. We would also welcome the opportunity to provide input to the Corps' analysis of before/after mitigation implementation (BAMI) procedures under the mitigation ratio Standard Operating Procedures (SOP).

We note that an off-site permittee-responsible project could be appropriate, if it would support a watershed approach to aquatic resource management (such as contributing to existing regional conservation plans), and "will restore an outstanding resource based on a rigorous scientific and technical analysis" (40 CFR 230.93(b)(2)). The conceptual plan lacks any such analysis, but clearly does not propose to restore an outstanding resource. According to the plan, 28.86 acres of constructed wetlands will be located on terraces adjacent to existing stream channels. These wetlands "are designed to be inundated during frequent storm events" and will accommodate post-development flows from the surrounding developments. We do not support replacing naturally occurring wetlands with constructed stormwater treatment wetlands. While we agree that these riverine wetlands can improve water quality and may support wildlife, we do not believe they are appropriate compensation for the loss of depressional wetlands such as vernal pools, seasonal wetlands and seasonal swales.

Recommendations:

- The Corps should not permit the project as proposed and should work with the EPA during development and identification of the LEDPA and mitigation planning.
- The Final EIS should identify the Environmentally Preferable Alternative as well as the LEDPA, and explain the basis for these designations.
- The Final EIS should include a revised mitigation plan that requires purchase of seasonal wetland and vernal pool credits from approved mitigation banks rather than giving compensatory mitigation credit for the on-site, out-of-kind constructed stormwater treatment wetlands proposed for this project.
    - If sufficient bank credits are not available, EPA recommends that the Corps only approve off-site permittee-responsible mitigation at sites selected using a watershed approach to restoration of ecosystem functions and services, and where activities are likely to be successful and naturally self-sustaining.

[1] Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon" (US Fish and Wildlife Service 2005).

- To the extent practicable, the form of all off-site mitigation should be in-kind rehabilitation and re-establishment rather than creation or preservation.

- EPA is available to provide technical assistance in scaling appropriate mitigation needs pursuant to the Corps SOPs. Please contact Eric Raffini, EPA Wetlands Office, at (415) 972-3544 or raffini.eric@epa.gov, to continue discussion of the LEDPA and mitigation plan.

Cumulative Impacts

EPA has serious concerns regarding the significant cumulative impacts to water quality and habitat (see Enclosure 3) and air quality (see Air Quality comments below) within the Sierra Vista cumulative effects study area. Tens of thousands of acres of land supporting vernal pools and related ecosystems are threatened by numerous proposed developments in western Placer County and adjacent Sacramento County. The Sierra Vista Specific Plan and other proposed development projects could potentially adversely affect 50 percent of the remaining vernal pool complexes in western Placer County. The project site is also located in an area that is federally designated non-attainment for ozone and PM2.5 (particulate matter smaller than 2.5 microns). These air pollutants can lead to a number of health problems. Children, in particular, have greater sensitivities to various environmental contaminants, including air pollutants. Construction and operation emissions could exacerbate existing conditions, such as asthma, for children, the elderly, and those with existing respiratory or cardiac disease.

While Chapter 4 of the Draft EIS identifies numerous planned development, transportation, and infrastructure improvement projects in the Sierra Vista cumulative effects study area, EPA is aware of many additional federal projects in which the Corps is involved and which are planned in the study area for the same general time period as the proposed Sierra Vista project. These projects, however, have not been identified in the Draft EIS (section 4.2.4). They include the Sun Creek Specific Plan, Sunridge Specific Plan, Mather Specific Plan, Folsom South of US Highway 50 Specific Plan, Rio Del Oro Project, Arboretum Project, Southport Sacramento River Early Implementation Project, Cordova Hills Project, Jackson Township Project, Folsom Dam Modification Project Approach Channel, and the Natomas Levee Improvement projects. It is unclear whether these projects have been considered in the Sierra Vista Specific Plan cumulative impacts analyses.

> **Recommendation:** Additional efforts should be made by the Corps to coordinate with appropriate agencies and applicants on the multiple projects in the area so that the cumulative effects of past, current, and foreseeable future projects can be more accurately identified, and minimized and/or effectively mitigated for each resource.

Air Quality

Table 3.3-12 (Draft EIS, p. 3.3-37) refers to the State Implementation Plan (SIP) emissions budget for volatile organic compounds (VOC), which are ozone precursors. EPA, however, has only partially approved the 2008 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2008 Ozone Plan), specifically the motor vehicle emissions budget for use in traffic conformity determinations. Therefore, it is not the applicable SIP for general conformity, and a general conformity determination for the Sierra Vista project cannot be

made based on this plan at this time. Based on the proposed project's potential construction emissions estimates in the Draft EIS, it appears that a conformity determination will be needed.

> **Recommendation:** The Final EIS should demonstrate that the direct and indirect emissions of the project conform to the SIP and do not cause or contribute to violations of the National Ambient Air Quality Standards (NAAQS). We recommend that the Corps work closely with the Placer County Air Pollution Control District on its conformity determination. We also recommend that the Draft General Conformity Determination be included in the Final EIS, either as a detailed summary or as an appendix.

The Draft EIS provides construction and operational emissions estimates in pounds per day for purposes of comparing them with emissions budgets and general conformity de minimis thresholds. It appears that, with the exception of carbon monoxide, the proposed project's direct and indirect contaminant emissions have not been modeled to show their estimated *concentrations* in the project area. Additional dispersion modeling should be conducted to determine air pollutant concentrations of criteria pollutants from direct, indirect, and cumulative emissions for an accurate comparison with the NAAQS, using comparable units (e.g. micrograms per cubic meter, parts per billion, or parts per million).

> **Recommendation:** The Final EIS should include this additional information.

EPA is concerned that the proposed action would result in a significant cumulative impact due to operational emissions (Draft EIS, p. 4.0-27). According to the Draft EIS (p. 4.0-4), the study area for cumulative air quality impacts is the Sacramento Valley Air Basin. As stated above, EPA is aware of multiple federal projects, in which the Corps is involved, and which are planned in the Sacramento Valley Air Basin for the same general time period as the proposed Sierra Vista project. Because many of these projects are not identified in the discussion in section 4.2.4 of the Draft EIS, however, it is unclear whether they have been considered in the cumulative air quality impacts analysis.

> **Recommendation:** Cumulative emissions should be evaluated for potential contributions to violations of the NAAQS. The air quality cumulative impacts analysis should account for all reasonably foreseeable future actions in the Sacramento Valley Air Basin. The Final EIS should provide a table that includes the criteria pollutant emissions estimates and totals from all of these sources for both the construction and operational phases of the projects.

The Draft EIS (p. 3.3-35) cites the general conformity rule incorrectly. The general conformity rule was revised April 5, 2010 (75 FR 17257). The EPA deleted the provision in 40 CFR 93.153 that required Federal agencies to conduct a conformity determination for regionally significant actions where the direct and indirect emissions of any pollutant represent 10 percent or more of a nonattainment or maintenance area's emissions inventory for that pollutant.

> **Recommendation:** This language should be deleted from the EIS.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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75 Hawthorne Street
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APR 2 8 2008

Colonel Thomas C. Chapman
District Engineer, Sacramento District
U.S. Army Corps of Engineers
1325 J Street, 14th floor
Sacramento CA, 95814-2922

Subject: Sierra Vista Specific Plan (PN 200601050), Placer County, California

Dear Colonel Chapman:

We have reviewed the public notice (PN 200601050) of March 28, 2008, regarding an application for a Department of the Army permit and Notice of Intent to prepare an Environmental Impact Statement (EIS) for the proposed Sierra Vista Specific Plan (SVSP) in Placer County, California. EPA supports the efforts of the partners involved in this project area to produce a unified approach through this single PN and the subsequent EIS. We believe this approach will facilitate consideration of cumulative effects and identification of appropriate avoidance and mitigation needs. We are providing the attached comments under the authority of, and in accordance with, the provisions of the Federal Guidelines promulgated under Section 404(b)(1) of the Clean Water Act (CWA) at 40 CFR 230 (the Guidelines).

According to the PN, the proposed SVSP is a mixed-use master planned community with residential, commercial, open space, and recreational land uses. The proposed 2,138 acre project site is located within the sphere of influence and directly adjacent to the urban boundary of the City of Roseville in an unincorporated portion of south western Placer County. At full build-out, the SVSP is expected to provide approximately 10,000 residential units in a "mixed-use, mixed-density master planned community with residential, commercial, office, public/quasi-public parks, and open space land uses, including two regional community centers."

There are approximately 51.87 acres of waters of the US within the project site, including portions of Curry Creek, wetlands, and vernal pools. The applicants propose to fill approximately 37.74 acres of these interconnected waters. Figure 4 of the PN illustrates varying degrees of avoidance of aquatic resources, but provides insufficient information to inform a detailed analysis of each individual site.

Vernal pool complexes, comprised of interconnected pools, wetlands and other waters are high value aquatic resources that provide habitat for federally threatened and endangered species. Some of the species that vernal pool complexes support occur only in California. High rates of biodiversity and endemism within vernal pool ecosystems and the large-scale destruction and

degradation of these ecosystems have increased the importance of the vernal pools and interconnected aquatic resources that remain. Statewide, as much as 85% of the original distribution of vernal pool complexes has been lost to development, and up to 33% of the crustacean species that are endemic to vernal pool habitat (e.g., fairy shrimp) may have already become extinct due to habitat destruction.[1] Between 1994 and 1997 Placer County lost approximately 500 acres of vernal pools per year,[2] and the County's continuing high rate of development threatens remaining vernal pool complexes. Due to the high ecological value and increasing rarity of these systems, EPA considers these vernal pool complexes to be aquatic resources of national importance (ARNI).

Based on information provided in the PN, it does not appear that the proposed project complies with the Guidelines' requirements for avoidance and minimization (40 CFR 230.10). Generally, the Guidelines limit issuing permits to only those projects that avoid waters to the maximum extent practicable. Regulated waters cover approximately 2.4% of the project site; however, the applicants' propose to permanently impact over 72% of the aquatic resources in the project area. Given the low percentage of waters on-site and the high percentage of proposed fill to these waters, it seems likely that more can be done to avoid direct discharges of fill material to waters. EPA believes that project alternatives having fewer impacts to aquatic resources are available and viable and should be examined in the EIS. The PN indicates that the applicants' propose to place four parcels into open space, largely along Carson Creek and its tributaries and under a power line right of way. Although aquatic resources are distributed widely across the site, it seems reasonable that a practicable project alternative can be developed to avoid considerably more than 14.13 acres of the 51.87 acres of onsite waters of the US.

Staff from EPA and the Army Corps of Engineers met monthly with the City of Roseville, staff from natural resource agencies, and individuals representing the project since March 2007 to discuss the SVSP's potential impacts and conflicts. EPA supports the efforts of the Army Corps of Engineers and applicants to consolidate the analysis of projects having the same infrastructure needs into one Environmental Impact Statement for purposes of fulfilling NEPA requirements and providing a base of information to support a CWA Individual Permit action. We communicated our concern regarding a lack of avoidance and compliance with the Guidelines early in the process. The value of on-site aquatic resources and the potential for further avoidance of impacts to these resources support the use of CWA regulatory tools to ensure compliance with the Guidelines. We also recommend that the applicants' coordinate closely with Placer County officials to bring their project into alignment with ongoing development of the Placer County Conservation Plan. We look forward to working collaboratively with the applicants' and the Corps through the NEPA and CWA process to reduce project impacts to a level that would make the project comply with these two acts. There will be additional comments regarding the Scope of the EIS following this letter.

At this time, however, the EPA finds that this project, as currently proposed, **may have** substantial and unacceptable impacts to aquatic resources of national importance. Direct project

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[1] King, J. L. (1996). Loss of Diversity as a Consequence of Habitat Destruction in California Vernal Pools. Ecology, Conservation, and Management of Vernal Pool Ecosystems, Sacramento, California Native Plant Society.
[2]CDFG (1998) Changes in Great Valley Vernal Pool Distribution from 1989 to 1997. Report to CDFG, Author Robert F. Holland. http://www.dfg.ca.gov/whdab/wetlands/vp_holland/report_index.htm.

impacts to vernal pools and interconnected aquatic resources would reduce the site's abundance and diversity of native habitat, terrestrial wildlife, and aquatic species and would contribute to the cumulative losses of vernal pools which currently exceed 85% of historic distribution. The magnitude of proposed fill to these valuable resources is unacceptable considering that jurisdictional waters cover such a small percentage of the project site. Therefore, we recommend denial of the project, as currently proposed. This letter follows the field level procedures outlined in the August 1992 Memorandum of Agreement (MOA) between the Environmental Protection Agency and the Department of the Army, Part IV, paragraph 3(a) regarding Section 404(q) of the Clean Water Act.

We look forward to working with your staff and the applicant to resolve the important environmental issues surrounding the proposed project. If you wish to discuss this matter further, please call me at (415) 972-3572 or David Smith, supervisor of the Wetlands Regulatory Office, at (415) 972-3464.

Sincerely,

Alexis Strauss, Director
Water Division

cc: Ms. Nancy Haley
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Sacramento District
1325 J Street, 14th floor
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Mr. Patrick Gillum
Central Valley Regional Water Quality Control Board
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Mr. Ken Sanchez
U.S. Fish and Wildlife Service
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Mr. Jeff Finn
California Department of Fish and Game
Sacramento Valley - Central Sierra Region
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Mr. John Baker
National Marine Fisheries Service
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Mr. Michael Johnson, Planning Director
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Detailed EPA Comments
PN 200601050 for the proposed Sierra Vista Project

I. Project Site

The PN 200601050 describes SVSP as a mixed-use master planned community with residential, commercial, open space, and recreational land uses. Participating landowners make up the vast majority of the 2,138-acre SVSP site. The proposed project is located in the southwest portion of unincorporated Placer County, directly adjacent to the City of Roseville and within the Roseville sphere of influence. Currently, SVSP plans to provide approximately 10,000 residential units.

II. Elevation of Individual Permit Decisions under CWA 404(q) MOA

Pursuant to the 1992 Memorandum of Agreement between the Environmental Protection Agency (EPA) and the Department of the Army per Clean Water Act ("CWA") Section 404(q), it appears that authorization of the proposed project may result in unacceptable adverse effects to aquatic resources of national importance (ARNIs). The wetlands in question are considered special aquatic sites under the Guidelines, and the vernal pool complexes on the project site support a diversity of unique plants and animals.

Aquatic Resources of National Importance

Placer County lies within the California Floristic Province, a "biodiversity hotspot"[3] recognized internationally for its high levels of species endemism, in part due to the presence of vernal pools and associated aquatic resources. Statewide, as much as 85% of vernal pools have been lost to development, and up to 33% of the original crustacean species that depend upon vernal pool habitat (e.g., fairy shrimp) may have already become extinct due to habitat destruction[4]. The mosaic of aquatic and terrestrial habitats on the project site are potential habitat for State and federally-listed species such as vernal pool fairy shrimp, vernal pool tadpole shrimp, northwestern pond turtle, Swainson's hawk, burrowing owl, prairie falcon, golden eagle, and tri-colored blackbird.[5] The high rates of endemism within vernal pool ecosystems and the large-scale destruction and degradation of these ecosystems have increased the importance of the landscapes that remain. Between 1994 and 1997 Placer County lost approximately 500 acres of vernal pools per year,[6] and it appears this vigorous pattern of loss has continued as Placer is one of California's fastest growing counties.

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[3] http://www.biodiversityhotspots.org/xp/Hotspots/hotspotsScience/hotspots_defined.xml and http://www.biodiversityhotspots.org/xp/Hotspots/california_floristic/

[4] King, J. L. (1996). Loss of Diversity as a Consequence of Habitat Destruction in California Vernal Pools. Ecology, Conservation, and Management of Vernal Pool Ecosystems, Sacramento, California Native Plant Society.

[5] Placer Vineyards Specific Plan Revised Draft Environmental Impact Report. March 2006. Section 4, pages 4.4-11 through 4.4-14. http://www.placer.ca.gov/CommunityDevelopment/EnvCoordSvcs/PVineyards.aspx

[6] CDFG (1998) Changes in Great Valley Vernal Pool Distribution from 1989 to 1997. Report to CDFG, Author Robert F. Holland. http://www.dfg.ca.gov/whdab/wetlands/vp_holland/report_index.htm.

The SVSP site is a relatively large and intact mosaic of vernal pool and grassland habitat. According to the PN, the site is characterized by integrated waters and wetlands including approximately 11.64 acres of vernal pools, 9.19 acres of seasonal wetlands, 19.65 acres of wetland swale, 2.63 acres of pond, 2.36 acres of perennial streams, 6.02 acres of intermittent streams, and 0.38 acres of ephemeral streams. The primary aquatic features that comprise vernal pool complexes (vernal pools, seasonal wetlands, and seasonal wetland swales) account for approximately 78% of the on-site waters, while linear features, associated wetlands, and ponds make up the remainder.

The US Fish and Wildlife Service (FWS) designated all of the land on the SVSP site as core recovery habitat for vernal pool fairy shrimp[7], which is a strong indication of the importance of this site to the maintenance of listed vernal pool species. Core areas are the specific sites the FWS considers necessary to recover endangered or threatened species and should be the initial focus of protection measures such as preservation. The vernal pool habitat on the SVSP site is occupied by vernal pool fairy shrimp. Preservation of habitat occupied by vernal pool fairy shrimp is a primary element of the FWS recovery strategy because vernal pool species are primarily threatened with extinction due to habitat loss and fragmentation. The vernal pools complexes on the SVSP site appear to serve an important role in the recovery of the endangered vernal pool fairy shrimp for US FWS.

This area of Placer County has a limited supply of opportunities for vernal pool compensatory mitigation and is considered an important part of a large-scale conservation plan for Placer County's aquatic and natural resources. If current efforts focused on protecting aquatic resources at the regional level are to succeed, avoidance of aquatic resources in a conservation strategy that provides for the long-term viability of aquatic resources is vital.

Substantial and Unacceptable Impacts

The proposed project impacts to vernal pools and integrated aquatic features are substantial and unacceptable based on the magnitude of fill, lack of sufficient avoidance, historical losses of these wetland types in the area, habitat fragmentation, and inadequate compensation opportunities. Project construction will result in the permanent loss of approximately 37.74 acres of waters and wetlands. The current proposal includes filling approximately 72.8% of all on-site waters including a high percentage of the vernal pools on the property. Similar to other types of wetlands and streams, vernal pools are dependent on interconnected water sources and immediately adjacent upland areas to function as wetlands and retain value as aquatic habitat. The filling of these aquatic resources:

- permanently destroys habitat for aquatic species and wildlife including endangered and special status species,
- causes a potentially irreversible loss of biodiversity, ecosystem stability, and valuable aquatic resources (see section on Significant Degradation), and
- may lead to decreased floodwater retention, increased sediment transport and runoff.

[7] US Fish and Wildlife Service (2005) Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon.

In addition, many of the seasonal wetlands and streams proposed for direct fill may impact avoided pools by altering the sediment and water supply through increasing impervious surfaces and burying streams into pipe culverts. The proposal to forego avoidance and fill almost 73% of on-site aquatic resources is unacceptable given that all or nearly all the waters could be avoided by realigning the planned open space.

Perhaps the most compelling reason the proposed impacts are both substantial and unacceptable, is the importance of the habitat on the SVSP site to the recovery of aquatic endangered species. The Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon lists habitat fragmentation as the single largest threat to the survival and recovery of listed species addressed in the Recovery Plan. The SVSP proposes to destroy most of the 11.64 acres of vernal pools and fragment an approximately 2000-acre landscape of vernal pool complexes. Figure 1 shows proposed development in western Placer County and the distribution of vernal pool core Recovery Areas identified by FWS. FWS recommends preserving 85% of the core areas identified in western Placer County, and the applicants have been unable to propose offsetting project impacts to aquatic habitat for endangered species by compensating within the core area. EPA has identified two other projects shown in Figure 1, Placer Vineyards and Lincoln 270, as candidates for elevation through the 404(q) process for similar reasons.

III. Clean Water Act Compliance

The purpose of the Section 404(b)(1) Guidelines is to restore and maintain the chemical, physical, and biological integrity of waters of the United States. These goals are achieved, in part, by prohibiting discharges of dredged or fill material that would result in avoidable or significant adverse impacts on the aquatic environment. The burden to demonstrate compliance with the guidelines rests with the permit applicant. The Guidelines contain four main requirements each of which must be complied with to obtain a Section 404 permit:

1. Section 230.10(a) prohibits a discharge if there is a less environmentally damaging practicable alternative to the proposed project. These alternatives are presumed for non-water dependent activities in special aquatic sites.

2. Section 230.10(b) prohibits discharges that will result in a violation of the water quality standards or toxic effluent standards, jeopardize a threatened or endangered species, or violate requirements imposed to protect a marine sanctuary.

3. Section 230.10(c) prohibits discharges that will cause or contribute to significant degradation of the waters of the United States. Significant degradation may include individual or cumulative impacts to human health and welfare; fish and wildlife; ecosystem diversity, productivity and stability; and recreational, aesthetic or economic values.

4. Section 230.10(d) prohibits discharges unless all appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

The applicant proposes to fill wetlands and vernal pools, aquatic resources considered special aquatic sites which are afforded a higher level of protection by CWA regulations. The Guidelines consider the degradation or destruction of special aquatic sites to be among the most severe environmental impacts that cause a potentially irreversible loss of valuable aquatic resources (40 CFR 230.1(d)).

Alternatives Analysis– 40 CFR 230.10(a)

Compliance with the Guidelines requires the applicant to clearly demonstrate that the "preferred" alternative is the Least Environmentally Damaging Practicable Alternative (LEDPA) that achieves the overall project purpose. In addition, the Guidelines presume the existence of project alternatives that do not include discharges of fill material to special aquatic sites when the project is not water dependent (40CFR230.10(a)(3)).

Alternatives

The applicants have been evaluating alternatives with input from natural resource agencies. Information describing these alternatives will be provided to the Corps in order to complete the CWA and NEPA processes. We provide the following guidance to support the evaluation of on-site and off-site alternatives. Identification of the LEDPA is achieved by performing an alternatives analysis that estimates the direct, secondary, and cumulative impacts to jurisdictional waters resulting from a set of on- and off-site project alternatives. As the project purpose ("large-scale, mixed-use, mixed-density master planned community") is not water-dependent, the applicant bears the burden of proof to rebut the Guidelines presumption that alternatives are available and capable of being done that do not include discharging dredged or fill material to special aquatic sites. The alternatives analysis should evaluate alternatives that fully avoid fill, avoid placement of fill in the vernal pool complexes on the western portion of the site, and provide for conservation consistent with the conservation footprint options being considered in the PCCP process. An evaluation of the long-term viability of avoided resources in onsite preserve designs for various alternatives can inform the LEDPA determination.

The analysis of project impacts should be commensurate with the magnitude of impacts to aquatic resources. Fewer impacts to aquatic resources require a less comprehensive alternatives analysis. Greater consideration should be given to onsite alternatives that optimize avoidance of aquatic resources. This project clearly rises to the threshold of significant impacts; therefore, the applicants need to perform, and the Corps should analyze carefully, an exhaustive alternatives analysis.

Impact Assessment

The alternatives analysis must evaluate direct, secondary[8], and cumulative[9] impacts for onsite and offsite alternatives for the proposed project. Secondary effects include: (1) changes in the hydrology and sediment transport capacity of Curry Creek and associated tributaries resulting from filling tributaries and wetlands; (2) increases in impervious surfaces and the corresponding increases in the volume and velocity of polluted stormwater; (3) decreases in water quality from the impairment of ecosystem services such as water filtration, groundwater recharge, and the attenuation of floods; (4) disruption of hydrological and ecological connectivity between aquatic resources filled, altered, or degraded on-site and off-site wetlands and vernal pools; and (5) decreases in biodiversity and ecosystem stability.

Cumulative impacts include past, present, and reasonably foreseeable direct and secondary impacts to the aquatic environment. Historical impacts on aquatic ecosystems include California's rapid population growth and resulting losses of approximately 95% of the State's wetlands[10] and up to 85% of the vernal pools. Tens of thousands of acres of land supporting vernal pools and related ecosystems are threatened by numerous proposed developments in western Placer County. SVSP and other proposed development areas potentially impact 50% of the remaining vernal pool complexes in western Placer County.[11] Pending and reasonably foreseeable projects include, but are not limited to, the Placer Parkway, Creekview Specific Plan, Placer Vineyards Specific Plan, Placer Ranch Specific Plan, Brookfield Property, Regional University, Curry Creek Community Plan, and any development associated with the City of Roseville Retention Basin. Figure 1 illustrates the intense development pressure in western Placer County and indicates a strong potential for cumulative adverse impacts to intact vernal pool landscapes.

LEDPA

As stated in the cover letter, the proposed project does not appear to be the LEDPA due to the lack of avoidance of aquatic resources and the magnitude of proposed fill.

Significant Degradation – 40 CFR 230.10(c)

The Guidelines prohibit granting a permit for a project that causes or contributes to significant degradation of aquatic resources. Effects contributing to significant degradation include significantly adverse effects resulting from the discharge of fill material into regulated waters such as: (1) loss of fish and wildlife habitat (40 CFR 230.10(c)(3)), (2) reduction of biological productivity caused by smothering wetland habitat (40 CFR 230.41), and (3) impairment or destruction of endangered species habitat (40 CFR 230.30(2)).

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[8] Secondary effects are defined by the Guidelines as effects on an aquatic ecosystem that are associated with a discharge of dredge or fill materials but do not result from the actual placement of the dredged or fill material (40 CFR 230.11(h)).

[9] Cumulative effects are defined by the Guidelines as changes in an aquatic ecosystem that are attributable to the collective effect of a number of individual discharges of dredged or fill material (40 CFR 230.11(g)).

[10] Dahl, T.E. 1990. Wetland losses in the United States 1780's to 1980's. U.S. Fish and Wildlife Service, Washington, D.C.

[11] GIS data collected by Placer County.

SVSP may cause or contribute to significant degradation of on site aquatic resources because discharging fill material into approximately 38 acres[12] of special aquatic sites will smother and kill aquatic life, permanently destroy habitat for wildlife dependent on these aquatic features, and subsequently reduce onsite ecosystem diversity, productivity, and stability. The proposed fill will destroy habitat for wildlife dependent on the onsite aquatic resources. Vernal pool complexes in the SVSP area are considered important concentration areas for waterfowl and shorebirds using the Pacific Flyway.

Vernal pools and their associated aquatic features support some of the most biologically diverse aquatic ecosystems in California and the United States.[13] The vernal pools on the SVSP site are located within the core recovery area for the vernal pool fairy shrimp (*Branchinecta lynchi*) and considered to be critical habitat for preservation by FWS. Destroying vernal pools, integrated aquatic resources, and associated upland habitat represents a potentially irreversible loss of core area preservation, biodiversity and valuable aquatic resources (40 CFR 230.1(d)), is considered a significant adverse effect by the Guidelines (40 CFR 230.41), and therefore may cause or contribute to significant degradation. Similarly, the mosaic of aquatic and terrestrial habitats on the project site are potential habitat for state special status species such as Northwestern pond turtle, Swainson's Hawk, burrowing owl, prairie falcon, golden eagle, and tri-colored blackbird.[14] Destruction of these habitat resources for endangered and threatened species would be considered significantly adverse by the Guidelines and therefore may cause or contribute to significant degradation.

Minimization– 40 CFR 230.10(d)

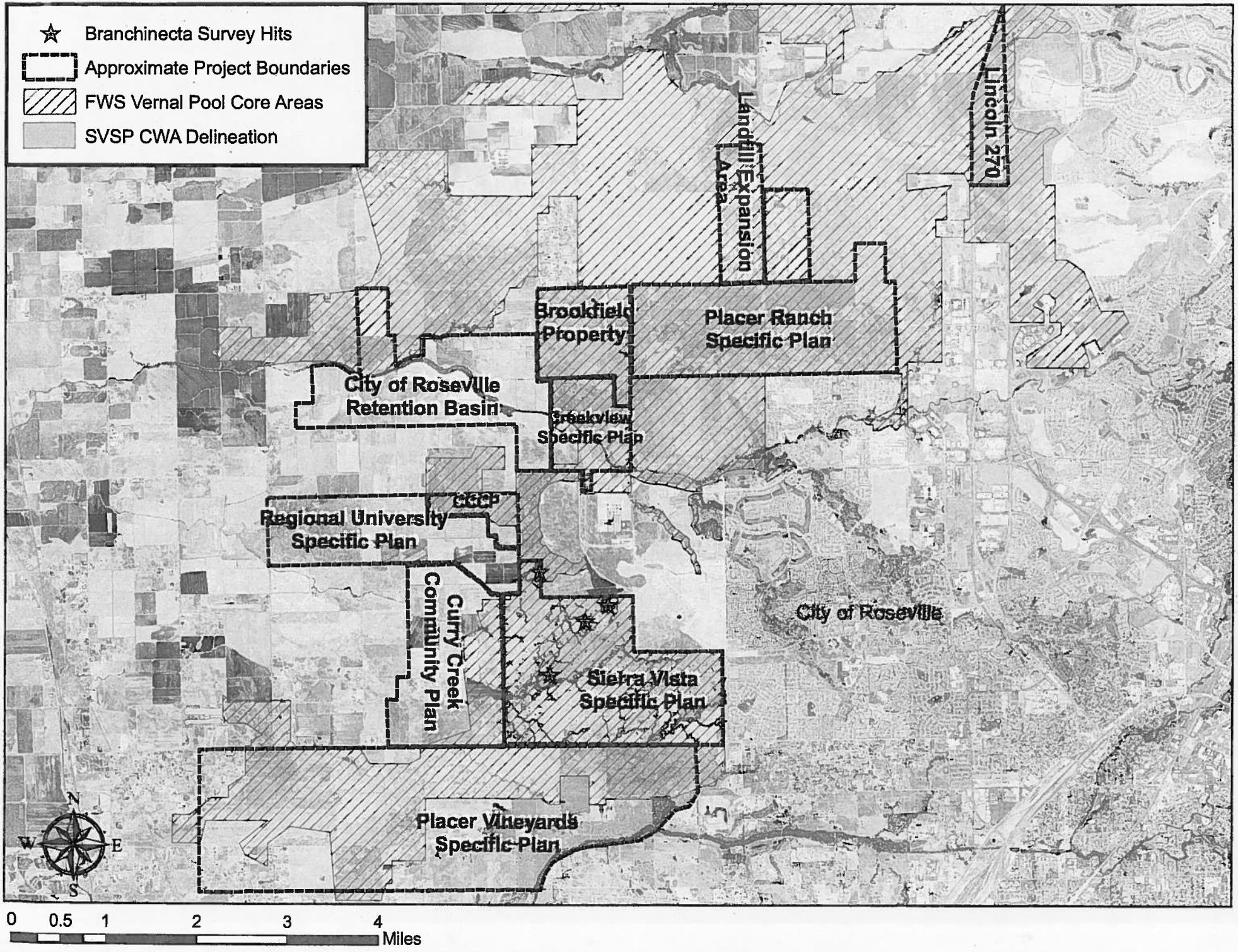
Failure to adequately offset project impacts is grounds for denial of the permit application, and it is not clear the applicants are able to compensate for proposed project impacts. The applicants have not been able to identify lands within the vernal pool core recovery area for compensation even though the entire project and impact site is within the core recovery area. CWA regulations and guidance require all appropriate and practicable steps be taken to avoid and minimize direct impacts to aquatic resources and to compensate for unavoidable discharges of dredged or fill material into waters (40 CFR 230.10(d)).

Specifically, it is important to: (1) increase the proposed avoidance and minimization; (2) document that the remaining proposed impacts are unavoidable; and (3) provide a compensatory mitigation plan for review consistent with the recently issued rule on Compensatory Mitigation for Losses of Aquatic Resources[15]. There are numerous challenges to compensating for impacts to the functions and values provided by vernal pools in western Placer County. For example, CALTRANS and private developers have reported a shortage of available compensatory mitigation opportunities in Placer County to compensate for the unavoidable impacts of pending

[12] Estimated from information provided in the CWA 404 permit application.
[13] http://www.biodiversityhotspots.org/xp/Hotspots/hotspotsScience/hotspots_defined.xml and http://www.biodiversityhotspots.org/xp/Hotspots/california_floristic/
[14] Placer Vineyards Specific Plan Revised Draft Environmental Impact Report. March 2006. Section 4, pages 4.4-11 – 4.4-14. http://www.placer.ca.gov/CommunityDevelopment/EnvCoordSvcs/PVineyards.aspx
[15] http://www.epa.gov/owow/wetlands/pdf/wetlands_mitigation_final_rule_4_10_08.pdf

projects. Mitigation opportunities in nearby counties are also constrained. Mitigation sequencing is now to be performed according the new rules, which stipulate the use of approved mitigation banks or in-lieu fee programs, or citing mitigation according to approved watershed plans. Should those prove to be not practicable, then permittee-responsible mitigation could be used to address unavoidable project impacts. In any case, permit applicants must take all appropriate and practicable steps to avoid and minimize impacts to special aquatic sites and other jurisdictional waters to reduce the need for compensatory mitigation.

As the applicants make progress avoiding and minimizing impacts, the need for specific information about proposed compensatory mitigation sites becomes increasingly important. Specific information includes delineations of waters of the US, proposed long-term management plans, proposed third-party management entity with documented capability, estimated endowment, and proposed easement language for protection of the resources in perpetuity. For example, we would not consider lands proposed for 1:1 open space mitigation as compensation for impacts to aquatic resources without first knowing the amount and type of delineated waters onsite and any proposed plans for creation, restoration, or enhancement. Uplands contained within the proposed open space mitigation site are not appropriate compensation for impacts to waters. Indeed all of these details will need to be analyzed through the development of the EIS for this project and associated alternatives analysis and compensatory mitigation plans.


Branchinecta Survey Hits
Approximate Project Boundaries
FWS Vernal Pool Core Areas
SVSP CWA Delineation
Landfill Expansion Area
Lincoln 270
Brookfield Property
Placer Ranch Specific Plan
City of Roseville Retention Basin
Creekview Specific Plan
CCCP
Regional University Specific Plan
Curry Creek Community Plan
City of Roseville
Sierra Vista Specific Plan
Placer Vineyards Specific Plan
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